

1 1. A method comprising:

2 forming a curved microspring spaced over a
3 semiconductor structure; and

4 forming a spring arm on said semiconductor
5 structure over said microspring.

1 2. The method of claim 1 including forming a curved
2 microspring by depositing a first material on said
3 structure, covering said first material with a conductive
4 second material and subsequently removing said first
5 material.

1 3. The method of claim 2 including removing the
2 first material by heating the first material.

1 4. The method of claim 1 including forming said
2 microspring, an actuator for said spring arm, and at least
3 a portion of said spring arm by forming a first layer on
4 said semiconductor structure and patterning said first
5 layer.

1 5. The method of claim 4 including covering said
2 layer with a removable material and covering said removable
3 material with a second layer.

1 6. The method of claim 5 including removing said
2 removable material.

1 7. The method of claim 6 including heating said
2 material to remove said material.

1 8. The method of claim 7 including removing the
2 first material underneath the microspring and said
3 removable material at the same time.

1 9. The method of claim 1 including forming said
2 microspring of a plurality of strips.

1 10. The method of claim 9 including forming said
2 strips under a free end of said spring arm.

1 11. A switch comprising: N
2 a semiconductor structure;
3 a curved collapsible microspring formed on said
4 semiconductor structure; and
5 a spring arm formed on said semiconductor
6 structure including a pair of opposed ends, one of said
7 ends coupled to said semiconductor structure and the other
8 said ends positioned over said microspring.

1 12. The switch of claim 11 including an actuator
2 formed on said semiconductor structure to move said spring
3 arm towards and away from said microspring. .

1 13. The switch of claim 2 wherein said actuator is
2 formed between the first and second ends of said spring
3 arm.

1 14. The switch of claim 11 wherein said microspring
2 is hemispherical.

1 15. The switch of claim 11 wherein said microspring
2 is formed of a plurality of spaced, curved strips.

1 16. The switch of claim 15 wherein each of said
2 strips contacts said semiconductor structure at two spaced
3 points.

1 17. The switch of claim 11 wherein said spring arm
2 and said microspring are resilient.

1 18. The switch of claim 11 wherein said switch is a
2 microelectromechanical system.

1 19. The switch of claim 11 wherein said microspring
2 is resilient.

1 20. A microelectromechanical system structure
2 comprising:
3 a semiconductor structure;
4 a removable material on said semiconductor
5 structure;
6 a curved microspring formed over said removable
7 material; and
8 a spring arm formed on said semiconductor
9 structure over said microspring.

1 21. The structure of claim 20 including a removable
2 material between said spring arm and said microspring.

1 22. The structure of claim 21 wherein said removable
2 material is removable through the application of heat.

1 23. The structure of claim 20 including an actuator
2 formed on said semiconductor structure to move said spring
3 arm towards and away from said microspring.

1 24. The structure of claim 21 wherein said spring arm
2 includes a pair of opposed ends, said microspring is
3 attached to said semiconductor structure on one end and is
4 arranged above the microspring on the other end.

1 25. The structure of claim 21 wherein said
2 microspring is formed of a plurality of spaced, curved
3 strips.

1 26. The structure of claim 25 wherein each of said
2 strips includes two different layers of material.

1 27. The structure of claim 26 wherein one of said
2 layers is a resilient conductor.

1 28. The structure of claim 20 wherein said removable
2 material is organic.

1 29. The structure of claim 28 wherein said removable
2 material is polymeric.

1 30. The structure of claim 21 wherein said removable
2 material under said microspring and said removable material
3 under said spring arm is the same material, said material
4 being removable upon heating.